

A new species and a new subspecies of *Acupicta* (Lepidoptera, Lycaenidae) from Sulawesi and Borneo

Kiyoshi OKUBO

Futami-cho 14-18-575, Nishinomiya city, Hyogo, 663-8111 Japan

Abstract A new species of *Acupicta*, which represents the first record of the genus for Sulawesi, Indonesia is described. *A. bubases* is recorded from Sumatra for the first time and a new subspecies of this species is described from Borneo.

Key words *Acupicta*, *Acupicta trajana* sp. nov., *Acupicta bubases*, *Acupicta bubases matsudai* ssp. nov., Lepidoptera, Lycaenidae, Wallacea, Sulawesi, Sumatra, Borneo, Indonesia.

Acupicta trajana sp. nov. (Figs 1–3)

♂. Eyes smooth, blackish. Antennae brown; shaft chequered with white. Labial palpi brown but apical segment whitish. Thorax and abdomen blackish dorsally, greyish ventrally.

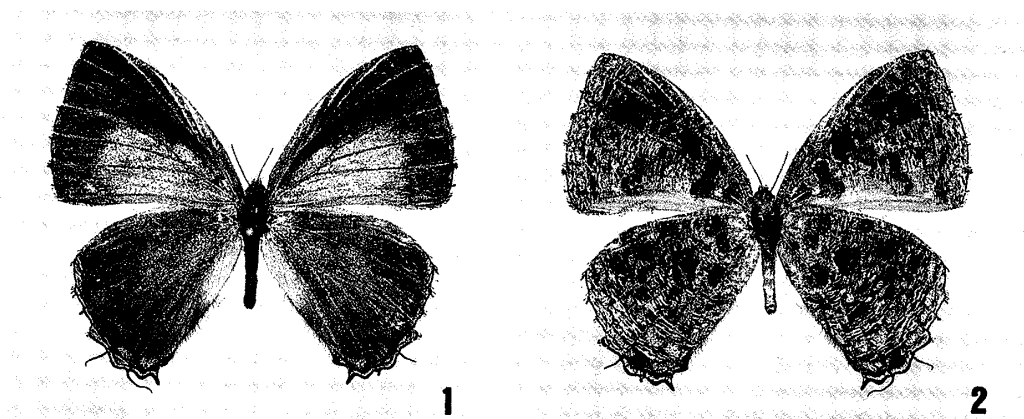
Forewing with ten veins and triangular in shape; costal margin gently curved; apex weakly angulated; outer margin weakly curved; inner margin almost straight. Hindwing with three tails, that at vein 1b triangular and 1.0 mm long, those at veins 2 and 3 filamentous and white tipped, 4.0 mm and 3.5 mm long each; costal margin gently curved; outer margin rounded, but convex at each of spaces 1b, 2 and 3; inner margin almost straight except for its base, with a small triangular tornal lobe near vein 1b.

Upperside of forewing. Fuscous brown in ground colour; basal two thirds, from spaces 1a to 3 and lower half of cell pale blue; cilia whitish with blackish basal scales, broadly fuscous at vein endings. Upperside of hindwing: Fuscous brown in ground colour, becoming paler toward base; basal half faintly scaled with pale blue; submarginal pale blue spots in spaces 1a to 2; outer margin faintly striated with pale buff, outwardly edged with pale blue in spaces 1b to 3; cilia uniformly black from veins 1b to 4, whitish with blackish basal scales and broadly fuscous and longer at vein endings above vein 4.

Underside of forewing. Ground colour buff, densely striated and mottled with buff-brown and deep brown except in the inner margin which is grey buff bearing few striae; ill-defined as darker spots and bands outlined by metallic silvery streaks on basal, postbasal, discal, subapical and submarginal portions; the subapical band broad but just discernible; the submarginal darker spots rather small. Underside of hindwing: Ground colour as in forewing; darker spots and bands as in forewing on basal, postbasal, cell-end, postdiscal and submarginal portions; the outer metallic silvery streaks of postdiscal portion vestigial; a rather prominent submarginal blackish spot in space 2; marginal portion in spaces 1b and 2 metallic silver.

Length of forewing. 18.0 mm.

Genitalia (Fig. 3). Dorsum simple and rather small; brachium slender and curved; vinculum slender; valvae small and of simple shape; juxta absent; phallus large and long; suprazonal sheath simply cylindrical and bearing numerous minute cornuti in the vesica.



Figs 1-2. *Acupicta trajana* sp. nov. 1. ♂, holotype. 2. Ditto, underside.

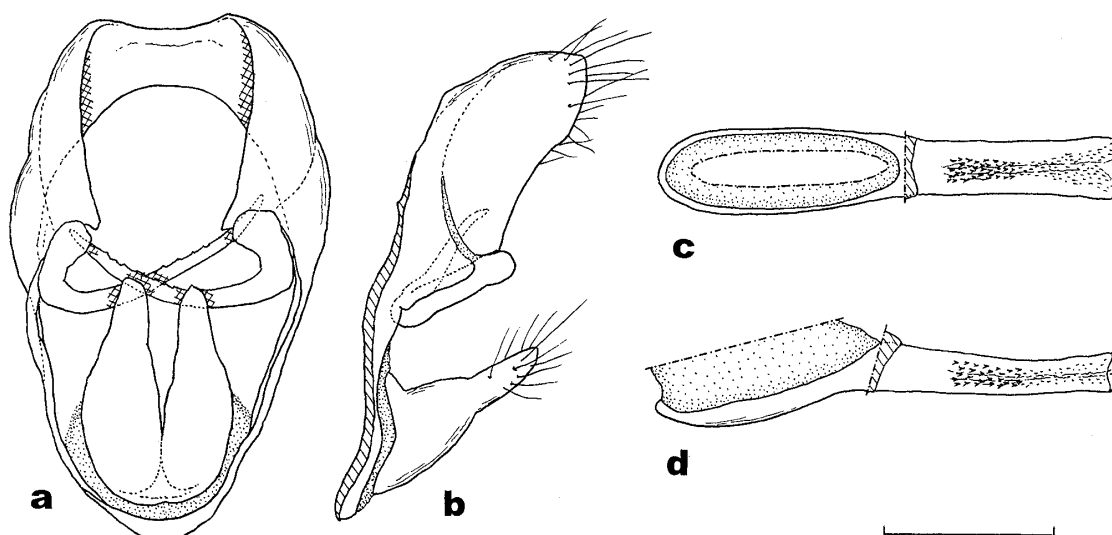
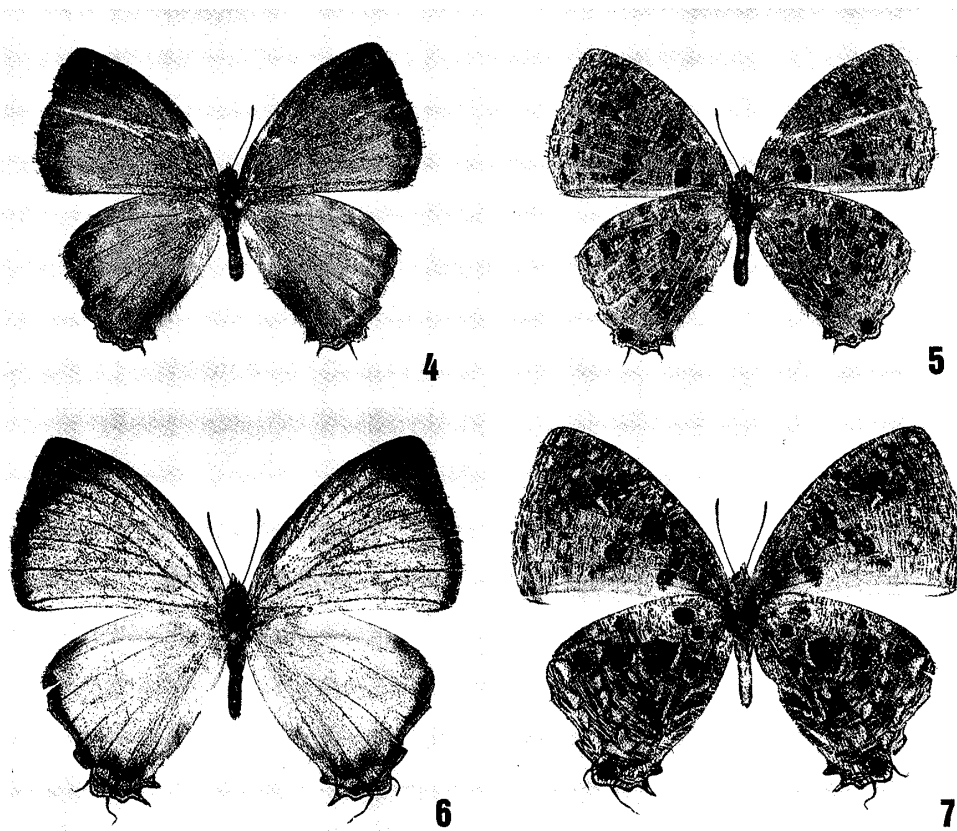


Fig. 3. Male genitalia of *Acupicta trajana* sp. nov., holotype. a: Ventral aspect of ring and valvae. b: Lateral aspect of ring and left hand valva. c: Lateral aspect of phallus. d: Dorsal aspect of phallus. Scale bar: 0.5 mm.

Holotype. ♂, Puncak Palopo, S. Sulawesi, Indonesia, 1997 May. The type specimen is now preserved in the author's collection, and will be deposited in Osaka Museum of Natural History.

Etymology. The specific name is derived from ethnic tribes of Sulawesi.

Remarks. The genus *Acupicta* has been known from widely disjunct localities and contains 6 species, *i. e.* *A. delicatum* (de Nicéville, 1888) from Sikkim, *A. bubases* (Hewitson, 1875) from peninsular Malaysia, Sumatra (new record, Figs 4, 5) and Borneo (Figs 6-8), *A. flemingi* Eliot, 1974, from peninsular Malaysia and Borneo (Matsuda, *pers. comm.*), *A. meeki* Eliot, 1974 from mainland New Guinea and Bismarcks, *A. hainanicum* Sugiyama, 1993 from Hainan, China and *A. inopinatum* Schroeder & Treadaway, 1998 from Mindanao, the Philippines, by only a very few specimens of each species (Fig. 9). There was a large gap in Wallacea, between Wallace's line and Lydekker's line (Moss and Wilson, 1998; Vane-Wright and de Jong, 2003) in their distributions. The discovery of the present



Figs 4-7. *Acupicta bubases* spp. 4. *A. b. bubases* (Hewitson), ♀, Sumatra Barat, Sumatra. 5. *Ditto*, underside. 6. *A. b. matsudai* ssp. nov., holotype, ♀. 7. *Ditto*, underside.

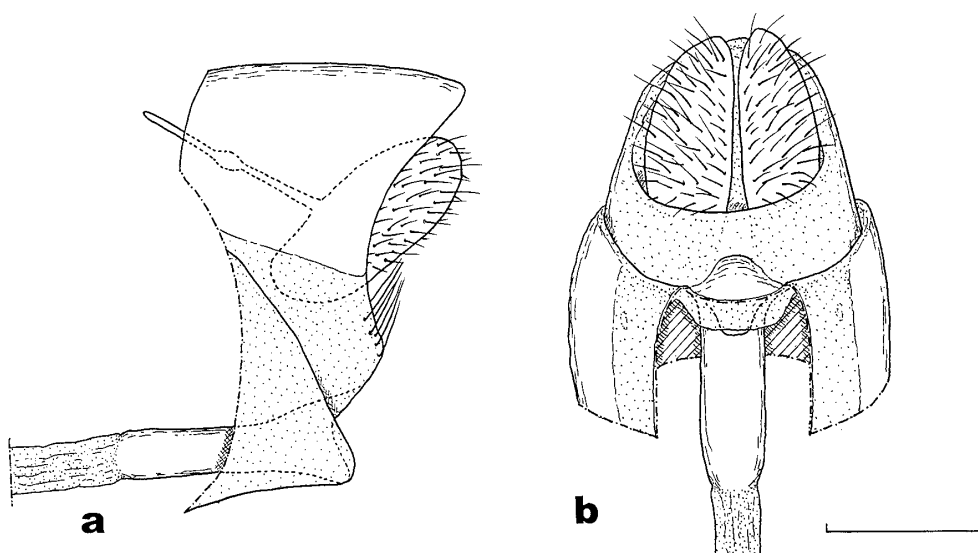


Fig. 8. Female terminalia of *Acupicta bubases matsudai* ssp. nov., holotype. a: Lateral aspect. b: Ventral aspect. Scale bar: 0.5 mm.

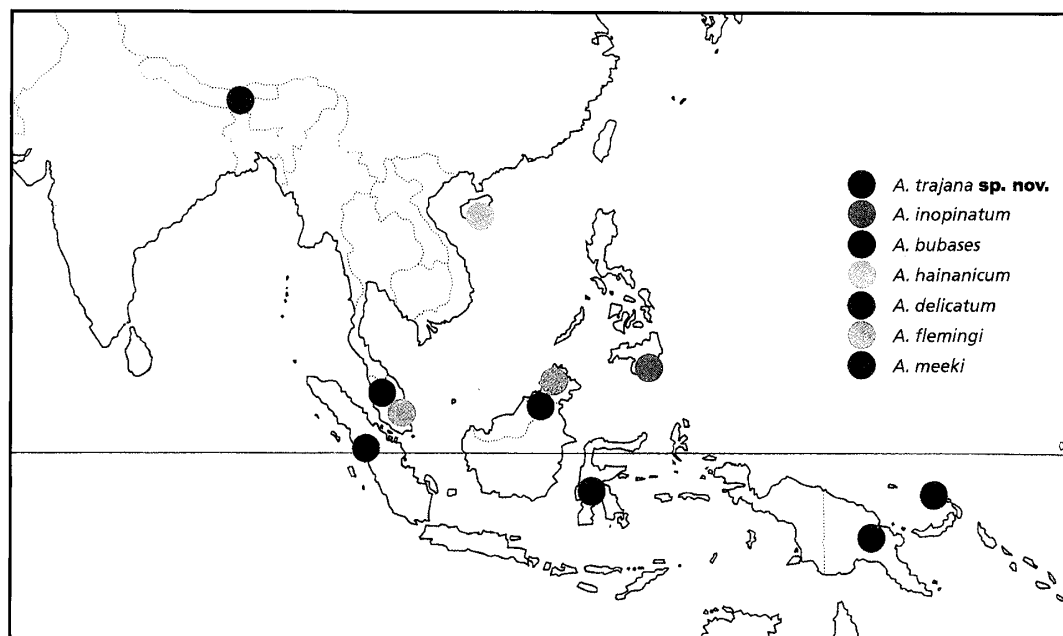


Fig. 9. Geographic distribution of *Acupicta* species.

new species from Sulawesi bridges a part of this gap.

The new species is allied to *delicatum*, *bubases*, *hainanicum* and *inopinatum*, particularly to the latter three species in the very similar pattern of the markings on the underside, but can be easily distinguished from them in having a large pale blue area on the fuscous brown ground colour of the upperside of the forewing, while the upperside of both wings is almost fuscous in *delicatum* and *hainanicum* and paler blue in *bubases* (the male of *inopinatum* has still not been discovered). Furthermore, the present new species differs from them in the following characters; 1) Apex of forewing less angulate than that of *delicatum*. 2) Tonal portion of hindwing less elongate than those of *delicatum*, *bubases* and *hainanicum* (that of *inopinatum* cannot be compared because of damaged condition of the one and only female holotype). 3) Subapical band on the underside of forewing broader than those of the above-mentioned four species.

***Acupicta bubases matsudai* ssp. nov.** (Figs 6–8)

The Bornean new subspecies differs from the nominotypical subspecies from West Malaysia and Sumatra (Figs 4, 5) in the following characters; 1) The ground colour on the upperside light mauve blue, while it is purplish blue in ssp. *bubases*. 2) Marginal border on the upperside of both wings narrower. 3) Markings on the underside more prominent. 4) Larger in size, forewing length 20.0 mm.

Holotype. ♀, near Merapok, Sipitang, Sabah, East Malaysia, 2004 February.

The type specimen is now preserved in the author's collection, and will be deposited in Osaka Museum of Natural History.

Etymology. The subspecies is named after Mr Hidehito Matsuda, who provided the author the material.

Acknowledgement

The author wishes to express his cordial thanks to Mr Hisakazu Hayashi, Osaka and Mr Hidehito Matsuda, Tokyo for their kind support and advice.

References

- Eliot, J. N., 1973. The higher classification of the Lycaenidae (Lepidoptera): A tentative arrangement. *Bull. Br. Mus. nat. Hist. (Ent.)* **28**: 373–505, 6 pls.
- , 1974. A new lycaenid butterflies from West Malaysia, and an allied species from Papua, New Guinea. *Malay. Nat. J.* **28**: 110–112.
- Moss, S. J. and M. E. J. Wilson, 1998. Biogeographic implications of the Tertiary palaeogeographic evolution of Sulawesi and Borneo. In Hall, R. and Holloway, D. (Eds), *Biogeography and geological Evolution of SE Asia*: 133–163. Backhuys Pub., Leiden.
- Schroeder, H. S. & C. G. Treadaway, 1998. Zur Kenntnis philippinischer Lycaenidae, 9 (Lepidoptera). *Ent. Z.* **108**: 204–208.
- Sugiyama, H., 1992. New butterflies from West-China, including Hainan. *Pallarge* (1): 1–19, 2 pls.
- Vane-Wright, R. I. and R. de Jong, 2003. The butterflies of Sulawesi: annotated checklist for a critical island fauna. *Zool. Verh. Leiden* **343**: 1–267, 16pls.

摘 要

セレベス島の *Acupicta* 属の1新種とボルネオ島の *A. bubases* の1新亜種 (大久保潔)

セレベス島からは記録のなかった *Acupicta* 属の1新種, *Acupicta trajana* を記載した.

本新種は *Acupicta* 属の既知6種のうち, *delicatum*, *bubases*, *hainanicum*, *inopinatum* と裏面の斑紋が極めて類似しているが, 翅表は, 前後翅ともに *delicatum*, *hainanicum* がほぼ黒褐色, *bubases* が淡青色であるのに対し, 黒褐色の地色に前翅基半部が広く淡青色を呈することで, 容易に区別可能である (ただし, *inopinatum* の♂は未知). また, 裏面においては前翅の翅端前部の斑紋列の幅が上記4種のいずれよりも広いことが特徴である.

さらにスマトラより初めて *A. bubases* を記録し, ボルネオ産の *A. bubases* を *ssp. matsudai* として区別した.

(Accepted April 7, 2007)